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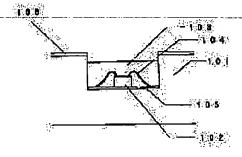
IZUNO KUNIHIRO

(54) LED DISPLAY

(57) Abstract:

visual field angle, improve reliability, and make an LED display thin by arranging a conductor wire and selecting a substrate with a plurality of recessed openings from ceramic, a metal substrate, and a heat-resistance organic resin with a thermally-conductive filler. SOLUTION: A substrate 101 has a conductor wiring layer 105 where, for example, an electrical connection member such as an LED chip 102 and a conductive wire 104 and a plurality of recessed openings that contain a fluorescent substance are provided. A substrate with the conductor wiring layer 105 with the recessed openings preferably has an improved adhesion property with, for example, a coating part 103 that contains a fluorescent with improved heat radiation property. As a wiring substrate material with the recessed openings, a ceramic substrate, a metal substrate with a conductor wiring layer via an insulation layer, based on a metal and a heat-resistance organic resin substrate with a thermally conductive filler are listed. Especially, a ceramic substrate mainly consisting of alumina is preferable, in terms of heat radiation property and weather resistance.

PROBLEM TO BE SOLVED: To achieve an improved fineness and a high



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